AMENDMENTS TO THE CLAIMS:

Please cancel claims 1, 2, 23-29, 33 and 34 amend the claims as follows:

Claims 1-10 (Cancelled)

Claim 11 (Currently Amended): ~~A fragment program for processing~~ A computer-readable medium that includes a set of instructions that when executed by a computing device causes the computing device to process fragment data in a fragment processing pipeline, ~~comprising a sequence of instructions comprising~~ by performing the steps of:

shading a first fragment associated with a destination location in a buffer;

storing the result of the first fragment shading in the destination location in the buffer;

shading a second fragment which is to be based in part on reading the result of the first fragment shading from the destination location;

detecting in a conflict detection unit that a read after write position conflict exists for the destination location in the buffer associated with the first and second fragments and interrupting the processing of second fragment; [[and]]

outputting write position information to the conflict detection unit confirming that shading of the first fragment and writing to the buffer is complete; and

on completing processing of the first fragment and storing the result in the destination location in the buffer resuming processing of the second fragment, processing of the second fragment including reading the destination location in the buffer without an intervening instruction to flush the fragment processing pipeline.

Claim 12 (Currently Amended): The ~~fragment program~~ computer-readable medium of claim 11, wherein the destination location includes a buffer identifier corresponding to one of several buffers.

Claim 13 (Currently Amended): The ~~fragment program~~ computer-readable medium of claim 11 comprising fragment program instructions to configure the fragment processing pipeline to perform depth buffering prior to shading.

Claim 14 (Currently Amended): The ~~fragment program~~ computer-readable medium of claim 11, comprising fragment program instructions to configure the fragment processing pipeline to perform depth peeling.

Claim 15 (Currently Amended): The ~~fragment program~~ computer-readable medium of claim 11, comprising:

fragment program instructions to configure the fragment processing pipeline to perform raster operations.

Claim 16 (Currently Amended): The ~~fragment program~~ computer-readable medium of claim 11, wherein raster operations are performed using fragment data represented in a floating-point data format.

Claims 17-29 (Cancelled)

Claim 30 (Previously Presented): A programmable graphics processor for execution of program instructions, comprising:

a read interface configured to read data from a graphics memory;

a fragment processing unit configured to receive fragments, each fragment associated with a position, and the data from the graphics memory and generate processed fragments;

a conflict detection unit configured to selectively store the position associated with each fragment and generate a position conflict status;

a write interface configured to write the processed fragments to the graphics memory; and

a fragment processing pipeline configured to handle read-after-write hazards during execution of shader programs including an instruction to write a location in graphics memory, an instruction to check the location in a conflict detection unit and a subsequent instruction to read a location in graphics memory without an intervening instruction to flush the fragment processing pipeline based on the check of the conflict detection unit.

Claim 31 (Previously Presented): A programmable graphics processor as claimed in claim 30, including a data cache storing additional data associated with the location, the conflict detection unit determining if the additional data associated with the location is available.

Claim 32 (Previously Presented): A programmable graphics processor as claimed in claim 31, wherein the location is a region comprising a plurality of pixels.

Claims 33-34 (Cancelled)

Claim 35 (Currently Amended): A ~~method~~ computer-readable medium as claimed in claim 11, including processing one or more additional fragments following processing the first fragment without unlocking the second fragment.